AMENDMENTS TO THE CLAIMS:

The following listing of claims replaces all prior versions of the claims and all prior listings of the claims in the present application.

1-35. (Cancelled).

36. (Currently amended) A method for measuring the weight of a preform for optical fibres during a chemical deposition process for the formation of a preform, comprising the steps of:

elastically constraining an elongated element comprising a chemical deposition substrate to a chemical deposition machine for the formation of the preform;

inducing an oscillation of said elongated element with the preform at least partially formed on the elongated element;

detecting the frequency of oscillation of said elongated element; and

calculating the weight of the preform based on the detected frequency of oscillation.

37. (Previously presented) The method according to claim 36, wherein the step of inducing an oscillation of said elongated element comprises the following steps:

supplying pressurised air, for a predetermined time, inside a seat housing an end portion of said elongated element; and

discharging the air from said seat after said predetermined time.

38. (Previously presented) The method according to claim 36, wherein the step of inducing an oscillation of said elongated element comprises the following steps:

supplying current, for a predetermined time, into a solenoid arranged on the outside of and coaxially to a coupling element rigidly associated with said elongated element, such a coupling element comprising at least one permanent magnet; and

interrupting the supply of current after said predetermined time.

39. (Previously presented) The method according to claim 36, wherein the step of detecting the frequency of oscillation of said elongated element comprises the following steps:

generating a signal representing the position in time of said elongated element; and

processing said signal to work out the frequency of oscillation of the elongated element.

40. (Previously presented) The method according to claim 39, wherein the step of generating a signal representing the position in time of said elongated element comprises the steps of:

sending a luminous signal toward a target rigidly associated with said elongated element;

collecting a luminous signal scattered by said target; and

processing the collected luminous signal to generate an electric signal representing the distance of said target.

41. (Cancelled)

42. (Currently amended) A chemical deposition process for the formation of a preform for optical fibres, which comprises measuring the weight of the preform by the steps comprising:

elastically constraining an elongated element comprising a chemical deposition substrate to a chemical deposition machine for the formation of the preform;

inducing an oscillation of said elongated element with the preform at least partially formed on the elongated element;

detecting the frequency of oscillation of said elongated element; and

calculating the weight of the preform based on the detected frequency of oscillation.

43. (New) The chemical deposition process of claim 42, wherein inducing an oscillation of said elongated element with the preform at least partially formed on the elongated element includes causing the elongated element to slide relative to a support from which the elongated element is suspended.

44. (New) The chemical deposition process of claim 43, wherein causing the elongated element to slide relative to a support from which the elongated element is suspended includes causing the elongated element to slide in a direction of an axis of the elongated element.

45. (New) The chemical deposition process of claim 42, wherein inducing an oscillation of said elongated element with the preform at least partially formed on the elongated element includes causing the elongated element to slide relative to a sleeve from which the elongated element is suspended.

46. (New) The chemical deposition process of claim 45, wherein causing the elongated element to slide relative to a sleeve from which the elongated element is suspended includes causing the elongated element to oscillate in a direction of an axis of the elongated element.

47. (New) The chemical deposition process of claim 42, wherein inducing an oscillation of said elongated element with the preform at least partially formed on the elongated element includes causing the elongated element to oscillate in a direction of an axis of the elongated element.

48. (New) The method of claim 36, wherein inducing an oscillation of said elongated element with the preform at least partially formed on the elongated element includes causing the elongated element to slide relative to a support from which the elongated element is suspended.

49. (New) The method of claim 48, wherein causing the elongated element to slide relative to a support from which the elongated element is suspended includes causing the elongated element to slide in a direction of an axis of the elongated element.

50. (New) The method of claim 36, wherein inducing an oscillation of said elongated element with the preform at least partially formed on the elongated element includes causing the elongated element to slide relative to a sleeve from which the elongated element is suspended.

51. (New) The method of claim 50, wherein causing the elongated element to slide relative to a sleeve from which the elongated element is suspended includes causing the elongated element to oscillate in a direction of an axis of the elongated element.

52. (New) The method of claim 36, wherein inducing an oscillation of said elongated element with the preform at least partially formed on the elongated element includes causing the elongated element to oscillate in a direction of an axis of the elongated element.